

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. -21. (Canceled)

22. (Currently Amended) An apparatus, comprising:

a communication path to exchange information packets;

a processor to process information packets;

a buffer pool register cache local to the processor to store a first list of free buffer handles for information packets if the buffer pool register cache is not full, wherein the buffer pool register cache is to store the first list of free buffer handles associated with both receive and transmit operations; and

a non-local memory to store a second list of free buffer handles for information packets if the buffer pool register cache local to the processor is full, wherein the non-local memory is not accessed if the buffer pool register cache local to the processor is not full, and

wherein the first list of free buffer handles points to different register locations than the second list of free buffer handles.

23. (Previously Presented) The apparatus of claim 22, wherein the processor is associated with a network processor.

24. (Previously Presented) The apparatus of claim 23, wherein the processor is a receive processor of the network processor.

25. (Previously Presented) The apparatus of claim 23, wherein the processor is a transmit processor of the network processor.

26. (Previously Presented) The apparatus of claim 23, wherein the network processor includes:

a control plane processor.

27. (Previously Presented) The apparatus of claim 22, wherein the communication path comprises:

an input path for receiving information packets; and

an output path for transmitting information packets.

28. (Previously Presented) The apparatus of claim 22, wherein the communication path comprises:

a memory path for fetching and freeing buffers.

29. (Previously Presented) The apparatus of claim 22, wherein the communication path connects to at least one of a dynamic random access memory or a static random access memory.

30. (Cancelled)

31. (Previously Presented) The apparatus of claim 22, further comprising:

a communication interface device coupled to the communication path.

32. (New) The apparatus of claim 22, wherein the first list of free buffer handles is a non-linked list and the second list is a linked-list.